Listing of claims

Please cancel previously withdrawn claims 26-49 and add new claim 58.

1. (previously presented) A bioresorbable, self-expanding stent comprising:

a cylindrical sleeve having a first end and a second end;

a latticed network disposed between said first end and said second end of said cylindrical sleeve;

said latticed network formed from a plurality of monofilaments, wherein at least two of said monofilaments are braided in an alternating braid pattern;

said plurality of monofilaments comprises at least one biocompatible polymer, and said cylindrical sleeve having a controllable in vivo lifetime; and

said self-expanding stent being annealed, and gamma-irradiated by exposure to gamma irradiation in an amount in the range of approximately 35 kGy to 75 kGy.

2. (original) The bioresorbable, self-expanding stent of claim 1 wherein said plurality of monofilaments ranges from 30 to 48 monofilaments.

3. (original) The bioresorbable, self-expanding stent of claim 2 wherein said plurality of braided monofilaments comprise 40 monofilaments.

4. (original) The bioresorbable, self-expanding stent of claim 1 further including at least a single strand shift between each adjacent monofilament.

5. (original) The bioresorbable, self-expanding stent of claim 1 further including an as-braided braid-crossing angle ranging from approximately 100° to 150°.

6. (original) The bioresorbable, self-expanding stent of claim 1 further including an as-braided braid-crossing angle of approximately 110°.

7. (original) The bioresorbable, self-expanding stent of claim 1 further including a post-annealed braid-crossing angle ranging from approximately 125° to 150°.

8. (original) The bioresorbable, self-expanding stent of claim 1, wherein said braid pattern is selected from the group consisting of under-one-over-one, under-one-over-two, under-one-over-three, under-two-over-two, under-two-over-three, and under-three-over-three.

9. (previously presented) A bioresorbable, self-expanding stent comprising:

a cylindrical sleeve having a first end and a second end;

a latticed network disposed between said first end and said second end of said cylindrical sleeve;

said latticed network formed from a plurality of monofilaments helically wound about a longitudinal axis of said cylindrical sleeve, wherein approximately one-half of said plurality of monofilaments are wound in a clockwise direction and approximately one-half of said plurality of monofilaments are wound in a counter-clockwise direction, and said plurality of monofilaments are braided in an alternating braid pattern;

said plurality of braided monofilaments comprises at least one biocompatible polymer, and said cylindrical sleeve having a controllable in vivo lifetime; and

said self-expanding stent being annealed, and gamma-irradiated by exposure to gamma irradiation in an amount in the range of approximately 35 kGy to 75 kGy.

10. (original) The bioresorbable, self-expanding stent of claim 9 wherein said plurality of monofilaments ranges from 30 to 48 monofilaments.

11. (original) The bioresorbable, self-expanding stent of claim 10 wherein said plurality of braided monofilaments comprise 40 monofilaments.

12. (original) The bioresorbable, self-expanding stent of claim 9 further including a single strand shift between each adjacent monofilament.

13. (original) The bioresorbable, self-expanding stent of claim 9 further including an as-braided braid-crossing angles ranging from approximately 100° to 150°.

14. (original) The bioresorbable, self-expanding stent of claim 9 further including an as-braided braid-crossing angle of approximately 110°.

15. (previously presented) The bioresorbable, self-expanding stent of claim 9 further including a post-annealed braid-crossing angle ranging from approximately 125° to 150°.

16. (original) The bioresorbable, self-expanding stent of claim 9, wherein said braid pattern is selected from the group consisting of under-one-over-one, under-one-over-two, under-one-over-three, under-two-over-two, under-two-over-three, and under-three-over-three.

17. (cancelled)

18. (previously presented) A bioresorbable, self-expanding stent comprising:

a tubular sheath having a first end and a second end; and

a fenestrated walled surface disposed between said first end and said second end, said fenestrated walled surface comprised of at least one biocompatible polymer,

said fenestrated walled surface having a controllable in vivo lifetime; and

said self-expanding stent being annealed and gamma-irradiated by exposure to gamma irradiation in an amount in the range of approximately 35 kGy to 75 kGy.

19. (original) The bioresorbable, self-expanding stent of claim 18 wherein said at least one biocompatible polymer is polydioxanone.

20. (original) The bioresorbable, self-expanding stent of claim 18 wherein said tubular sheath has an inner diameter ranging from 12 mm to 18 mm.

21. (original) The bioresorbable, self-expanding stent of claim 18 wherein said tubular sheath has an inner diameter of approximately 15 mm.

22. (previously presented) The bioresorbable, self-expanding stent of claim 25 said tubular sheath having an inner diameter ranging from 12 mm to 18 mm.

23. (previously presented) The bioresorbable, self-expanding stent of claim 25 wherein said tubular sheath has an inner diameter of approximately 15 mm.

24. (cancelled)

25. (previously presented) A bioresorbable, self-expanding stent comprising:

a tubular sheath having a first end and a second end; and

a fenestrated walled surface disposed between said first end and said second end, said fenestrated walled surface comprised of polydioxanone, wherein said tubular sheath has a controllable in vivo lifetime; and

wherein said self-expanding stent is annealed.

26. – 49. (cancelled)

50. (previously presented) The bioresorbable, self-expanding stent of claim 1 having a controllable in vivo lifetime of at least two weeks.

51. (previously presented) A method for using a bioresorbable, self-expanding stent comprising:

disposing said bioresorbable, self-expanding stent in a delivery system, said bioresorbable, self-expanding stent having a controlled in vivo lifetime;

inserting said delivery system into a constricted region within a body canal;

deploying said bioresorbable stent into said constricted region; and

allowing said bioresorbable stent to self-expand and restore patency of said constricted region;

said self-expanding stent being annealed, and gamma-irradiated by exposure to gamma irradiation in an amount in the range of approximately 35 kGy to 75 kGy.

52. (previously presented) The bioresorbable, self-expanding stent of claim 1 which exhibits a bilateral self-expansion force of 6N or more in a compressed state where, in the compressed state, the stent has a diameter that is half a diameter, or less, of the stent in an expanded state.

53. (previously presented) The bioresorbable, self-expanding stent of claim 1 wherein the stent exhibits a bilateral compression resistance of 8N or more in a compressed state where, in the compressed state, the stent has a diameter that is half of a diameter, or less, of the stent in an expanded state.

54. (previously presented) The bioresorbable, self-expanding stent of claim 1 wherein the stent exhibits a radial self-expansion force of 4N or more in a constrained state where, in the constrained state, the stent has a diameter that is less than or equal to half of a diameter of the stent in an expanded state.

55. (previously presented) The bioresorbable, self-expanding stent of claim 1 wherein the stent exhibits a radial compression resistance of 10N or more in a constrained state where, in the constrained state, the stent has a diameter that is less than or equal to half of a diameter of the stent in an expanded state.

56. (previously presented) The stent of claim 1 wherein the alternating braid pattern comprises an under-two over-two pattern.

57. (previously presented) The stent of claim 1 comprising poly-L-lactide.

Please add the following new claim:

58. (new) A bioresorbable, self-expanding stent comprising:

a cylindrical sleeve having a first end and a second end;

a latticed network disposed between said first end and said second end of said cylindrical sleeve;

said latticed network formed from a plurality of monofilaments, wherein at least two of said monofilaments are braided in an alternating braid pattern;

said plurality of monofilaments comprising at least one biocompatible polymer, and said cylindrical sleeve having a controllable in vivo lifetime as caused by exposure to gamma irradiation in an amount in the range of approximately 35 kGy to 75 kGy;

said self-expanding stent being annealed, and

sterlized with ethylene oxide.